

Horticulture Series No. 553

February 1985

1984  
EVALUATION OF  
SWEET CORN CULTIVARS  
COLUMBUS AND FREMONT, OHIO

O. A. R. D. C.

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William M. Brooks, Monica K. Wertz, James D. Utzinger,  
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William H. Anderson, Maurice K. Smith, James D. Utzinger,  
Richard A. Smith, Gregory L. Dickson and Charles C. Willet

EVALUATION OF SWEET CORN CULTIVARS - 1984  
Columbus and Fremont

William M. Brooks<sup>1</sup>, Monica K. Wertz<sup>2</sup>, James D. Utzinger<sup>1</sup>  
Gregory L. DiCenzo, Gerald G. Myers<sup>1</sup>, and Charles C. Willer<sup>3</sup>

The 1984 Sweet Corn Cultivar Trials at Fremont consisted of twenty-eight cultivars which were replicated four times.

Corn was seeded on June 6 at Fremont in rows 36" apart with hills spaced 18" apart in the row. Single row plots of 21 hills were 31.5' long. Blocks and tiers of plots were separated by a distance of at least six feet. Guard rows were planted to the north and south sides of rows running east and west at Fremont. All plots were planted by hand jabbers with 4 kernels per hill. Plants were thinned to 2 plants per hill at the 2 to 3 leaf stage.

Prior to planting at Fremont, 15-15-15 fertilizer was broadcast at the rate of 1000 pounds per acre. One hundred fifty pounds of 6-24-12 fertilizer was placed in bands at planting. The corn was sidedressed with ammonium nitrate at a rate of 50 lbs. N/acre. Three quarts of Lasso per acre was used for weed control. Insecticides were applied on a regular spray schedule.

Earliking was harvested on August 3 which was 3 days earlier than the next maturing cultivar. The highest yielding cultivars for each color type in dozens of marketable ears per acre were: 1) Yellow: Seneca Sentry-1892, and Gold Winner-1882; 2) Bi-Color: Honey-N-Frost-1508; 3) White: Silver Streak-2467 and Silver Queen-1613. Merit and NK-199 ears were quite a bit larger than any other ears measured by weight. The percent of ears marketable was very good for most cultivars (Table 1).

Weather Data

<u>Month</u>	<u>Average Temperature (°F)</u>	<u>Total Rainfall (inches)</u>	<u>Above or Below Normal (inches)</u>
June	72.2	1.96	-2.06
July	70.9	2.82	-1.19
August	70.5	3.20	-0.31
September	60.5	2.52	-0.48

Listed below are the seed companies who generously supplied the seed for the trials at Fremont and Columbus at no cost.

Code used in tables

Company and Location

1	Abbott & Cobb, Inc., P.O. Box 307, Feasterville, Pa. 19047
2	Agway, Inc., Vegetable Seed Farm, Prospect, Pa. 16052
3	Asgrow Seed Co., Kalamazoo, Mi. 49001
4	Ferry-Morse Seed Co., Mountain View, Ca. 94042
5	Joseph Harris Co., Rochester, N.Y. 14624
6	Illinois Foundation Seeds, Inc., P.O. Box 722, Champaign, Il. 61820
7	Liberty Seed, P.O. Box 806, New Philadelphia, Ohio 44663
8	Robson Seed Farms Co., Hall, N.Y. 14463
9	Rogers Bros. Co., Idaho Falls, Id. 83401
10	J. Schlessman & Sons, Inc., Avery, Ohio
11	Seedway, Inc., Hall, N.Y. 14463
12	Stokes Seed Inc., P.O. Box 548, Buffalo, N.Y. 14240
13	Sun Seeds, Eden Prairie, Mn. 55344



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- 1) Mailing Address: Department of Horticulture, The Ohio State University, 2001 Fyffe Ct., Columbus, Ohio 43210.
  - 2) Manager, Vegetable Crops Branch, Fremont, Ohio.

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2/85/S-444-500

1984 Evaluation of Sweet Corn Cultivars - Columbus

The 1984 sweet corn cultivar trials at The Ohio State University Horticultural Farm, 1000 West Lane Avenue, Columbus, consisted of twenty-eight (28) cultivars which were replicated four times and seventy-six (76) cultivars in non-replicated, single plots.

Corn was seeded on May 15, 1984, in 36" rows with hills spaced 18" apart. Single row plots of 21 hills were 31.5' long. Blocks and tiers of plots were separated by a distance of six feet. Guard rows were planted to the east and west sides of rows running north and south with guard hills across the north and south ends of the entire planting. In addition to the other guard rows, 4 row of an early maturing and a late maturing cultivar were planted on both the east and west sides of the entire planting of plots to enhance pollination. All plots were planted by hand jabber with 4 kernels per hill. Plants were thinned to 2 plants per hill at the 2 to 3 leaf stage.

Prior to plowing, 15-15-15 fertilizer was applied broadcast at the rate of 1000 pounds per acre. There was also 250 pounds 6-24-12 placed 2 inches to the side and 2 inches below the seed at planting time. Ramrod herbicide was applied, immediately after planting, at 5 pounds active ingredient per acre. No insecticides or fungicides were applied after planting. Most lots of seed had been treated with a fungicide and/or an insecticide. Irrigation was used throughout the season as needed. The rainfall was below normal; therefore, several irrigations were required during the season.

The following information on temperature and rainfall was obtained from the University Farm records in Columbus, Ohio:

Weather Data

Month	<u>Average Temperature (°F)</u>	<u>Total Rainfall (inches)</u>	<u>Above or Below Normal (inches)</u>
May	57.6	4.60	-0.17
June	73.1	1.27	-2.60
July	71.5	1.40	-2.57
August	73.3	2.27	-1.22

The first harvest was made on July 23 and the last harvest was made August 17. The highest yielding cultivar in the replicated plots (Table 2) based on Marketable ears harvested per acre was Golden Glade. Many of the varieties had a very low percentage of marketable yield due to the excess racoon damage.

Table 1. Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars - Fremont - 1984.

Variety & Source ( )*		Days to first harvest	Marketable Yield/A			Av. Wt.	Avg.	Avg.	Ear worms %	Smut %	Bird damage %	Kernel Color
			dozens of ears	wt. (tons)	per- Cent	mkt.ears unhusked (lbs.)	lgth.ears husked (in.)	dia.ears husked (in.)				
Earliking	(13)	58	1640	5.6	88	.57	7.0	1.6	-	3	-	Y
Spirit	(9)	61	1501	6.2	92	.69	7.6	1.8	-	-	1	Y
Seneca Horizon	(8)	61	1448	6.4	92	.74	7.2	1.9	-	1	5	Y
Horizon	(7)	61	1487	6.6	99	.74	7.7	1.8	-	-	-	Y
Spring Crystal	(11)	63	1610	6.0	90	.63	7.4	1.7	-	-	1	W
Aztec	(3)	63	1498	6.3	93	.70	7.6	1.7	1	-	1	Y
Sundance	(5)	63	1497	5.9	86	.66	7.2	1.7	-	3	-	Y
Goldust	(2)	65	1738	6.9	91	.66	7.2	1.6	-	-	-	Y
Platinum Lady	(7)	65	1728	5.7	93	.55	7.6	1.6	-	-	1	W
Rekavee	(12)	65	1552	6.9	90	.74	7.5	1.8	-	-	-	Y
Sweet Treat	(4)	65	1314	5.5	79	.70	7.8	1.8	-	1	-	Y
Pearle White	(2)	68	1534	6.7	89	.73	7.6	1.8	-	4	1	W
Crusader	(11)	68	1440	6.7	89	.76	8.4	1.8	-	1	-	Y
Candy Bar	(4)	68	839	3.7	74	.74	7.8	1.8	-	4	-	Y
Silver Streak	(5)	70	2467	8.7	88	.59	7.3	1.7	-	-	-	W
Chalice	(9)	70	1375	5.4	90	.65	8.0	1.8	-	-	-	W
Honey-N-Frost	(11)	72	1508	6.8	88	.75	8.0	1.9	5	-	-	BC
Gold Winner	(5)	73	1882	8.5	94	.75	7.7	1.8	1	-	-	Y
Merit	(3)	73	1546	8.0	94	.86	8.3	2.0	-	-	1	Y
Honeycomb	(13)	74	1253	5.3	89	.70	7.8	1.8	-	-	-	BC
Golden Glade	(4)	75	1853	8.7	90	.78	8.5	1.8	-	-	-	Y
NK199	(13)	75	1565	8.0	95	.85	8.0	2.2	2	1	1	Y
Seneca Pinto	(7)	75	1444	6.8	91	.79	8.5	1.8	1	-	-	BC
Sweetie	(13)	75	1330	6.1	85	.77	7.7	1.9	-	-	-	Y
Silver Queen	(9)	78	1613	7.5	86	.78	8.2	1.8	-	-	-	W
Summer Sweet 8601	(1)	78	1181	5.0	72	.71	7.7	2.0	4	1	-	W
Seneca Sentry	(8)	82	1892	8.7	90	.77	7.2	1.9	4	-	-	Y
Seneca Paleface	(7)	82	1098	5.1	88	.78	8.0	1.9	6	1	-	W

LSD 5%

233.95 1.21

\*Cultivars ranked according to days to first harvest (lowest first) and dozens of marketable ears per acre (highest yield) based on ears listed first within maturity. ( ) number within bracket refers to seed company supplying seed.

Table 2. Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars - Columbus - 1984.

Variety & Source	()	Days to first harvest	Marketable Yield/A			Avg.Wt. mkt.ears unhusked (lbs.)	Avg. lgth.ears husked (in.)	Avg. dia.ears husked (in.)	Ear worms %	Smut %	Bird damage %	** Racoon damage %	Kernel Color
			dozens of ears	wt. (tons)	per- cent								
Earliking	(13)	71	442	1.2	42	.44	6.6	1.7	15	6	-	29	Y
Sundance	(5)	72	461	1.4	43	.50	7.1	1.5	6	2	1	47	Y
Aztec	(3)	72	298	0.95	35	.53	7.9	1.6	13	-	2	52	Y
Gold Dust	(2)	76	941	3.1	67	.55	7.6	1.6	8	-	-	5	Y
Sweet Treat	(4)	76	317	1.3	40	.68	8.5	1.6	9	10	18	6	Y
Candy Bar	(4)	76	192	0.8	44	.68	8.0	1.3	6	9	5	20	Y
Rekavee	(12)	77	509	1.8	43	.59	7.1	1.6	12	4	1	34	Y
Crusader	(11)	78	298	1.2	40	.70	8.1	1.6	6	-	2	-	Y
Gold Winner	(5)	79	1220	4.1	87	.56	7.8	1.6	4	-	2	1	Y
Pearle White	(2)	79	980	3.3	65	.56	7.6	1.6	8	2	4	2	W
Platinum Lady	(7)	79	970	2.9	69	.50	7.4	1.3	5	1	6	4	W
Chalice	(9)	79	912	3.0	64	.55	8.4	1.4	12	1	1	8	W
Honey-N-Frost	(11)	83	1143	4.0	72	.59	7.8	1.6	2	-	8	2	BC
Honeycomb	(13)	84	624	2.3	64	.62	7.6	1.6	6	-	3	-	BC
Merit	(3)	85	1143	4.6	72	.67	8.4	1.8	5	-	1	2	Y
Silver Streak	(5)	85	903	3.3	49	.60	7.0	1.7	9	-	13	8	W
Seneca Paleface	(7)	86	1037	3.1	71	.50	7.6	1.6	4	-	1	2	W
Sweetie	(13)	87	999	3.9	64	.66	7.7	1.5	6	-	15	-	Y
NK199	(13)	87	682	2.8	56	.68	7.8	1.8	11	-	7	7	Y
Summer Sweet 8601	(1)	88	749	2.8	57	.63	7.2	1.9	9	1	8	-	W
Silver Queen	(9)	89	817	2.8	48	.57	7.8	1.4	1	-	-	-	W
Golden Glade	(4)	91	1412	6.5	82	.76	8.7	1.8	3	1	2	-	BC
Seneca Pinto	(7)	92	663	2.9	68	.73	7.8	1.8	3	1	2	-	BC
Seneca Sentry	(8)	94	1287	5.6	70	.72	7.8	1.8	7	-	-	-	Y
Horizon***	(7)						6.5	1.6					Y
Spring Crystal	(11)						6.7	1.5					W
Spirit***	(9)						7.2	1.5					Y
Seneca Horizon***	(8)						6.6	1.6					Y

LSD 5%

331.12 1.32

\*Cultivar ranked according to days to first harvest (lowest first) and dozens of marketable ears per acre (highest yield) based on ears listed first within maturity. () number within bracket refers to seed company supplying seed.

\*\*Marketable yield reduced by racoon damage.

\*\*\*No yield data taken due to excessive racoon damage.

Table 3. Non-Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars - Columbus - 1984

Variety & Source	( )*	Days to first harvest	Marketable Yield/A**			Avg.Wt. mkt.ears unhusked (lbs.)	Avg. lgth.ears husked (in.)	Avg. dia.ears husked (in.)	Ear worms %	Smut %	Bird damage %	Raccoon damage %	Kernel Color
			dozen of ears	wt. (tons)	per- cent								
Kodiak	(13)	71	76	0.2	10	0.40	6.1	1.6	18	27	-	18	Y
MTD 4812	(12)	72	1037	3.1	76	0.49	7.8	1.8	12	-	-	-	Y
White Satin	(2)	72	499	1.8	62	0.59	6.1	1.7	30	17	-	-	W
HXP 2344Y	(5)	72	499	1.5	50	0.49	7.1	1.5	19	-	-	9	Y
Pride And Joy	(7)	72	422	1.52	43	0.60	8.4	1.5	17	2	-	5	BC
RXP-348	(8)	72	422	1.5	34	0.60	8.5	1.6	50	-	-	14	Y
Stardust	(7)	72	-	-	-	-	6.4	1.6	21	3	-	17	W
Stardust	(2)	73	307	1.1	45	0.58	7.2	1.7	9	-	-	3	W
Early Sunray	(11)	73	307	0.74	31	0.40	6.8	1.3	-	-	-	-	Y
HXP-2353B	(5)	73	230	0.55	28	0.40	6.9	1.6	17	17	-	-	BC
Jazz	(9)	73	-	-	-	-	6.0	1.2	9	-	-	14	B
MTD-484	(12)	73	-	-	-	-	5.6	1.4	17	17	-	18	Y
MTD-489	(12)	74	768	2.9	47	0.64	7.5	1.6	3	-	-	3	Y
MTD-482	(12)	74	-	-	-	-	5.2	1.3	4	-	-	24	Y
MTD-4811	(12)	75	768	2.9	47	0.64	8.8	1.6	19	2	-	-	Y
FMX-46	(4)	76	1267	5.6	80	0.74	8.5	1.8	11	-	4	-	Y
RXB-7501	(8)	76	1152	4.5	66	0.66	7.6	1.8	13	-	-	-	BC
Debut	(9)	76	1075	4.0	73	0.62	7.0	1.4	5	2	15	-	Y
Crystal-N-Gold	(11)	76	960	4.2	65	0.72	8.3	1.6	-	12	-	-	BC
Intrepid	(7)	76	653	3.0	49	0.77	9.0	1.8	32	-	13	-	Y
RXP-356	(8)	76	307	1.1	51	0.59	8.1	1.6	9	-	13	-	Y
RXP-290A	(8)	79	1766	5.9	76	0.55	7.8	1.6	3	1	1	-	W
HXP-2352Y	(5)	79	1229	4.4	84	0.59	7.6	1.6	8	-	2	-	Y
XPH-2574W	(3)	79	1152	3.8	72	0.56	7.8	1.5	6	-	11	-	W
XP071	(2)	79	1113	3.9	55	0.59	8.0	1.6	3	3	31	-	Y
Honey Moon	(2)	79	1037	3.6	58	0.58	7.7	1.6	8	2	4	-	BC
XPH-2565	(3)	79	998	3.4	62	0.56	7.7	1.6	8	2	4	4	Y
Snow Belle	(3)	79	960	2.7	51	0.47	7.6	1.6	3	2	5	-	W
Double Delight	(7)	79	921	3.0	59	0.54	7.5	1.5	4	-	17	-	BC
RXB 8301	(8)	79	653	2.2	36	0.57	8.2	1.7	7	-	9	4	BC
XP 361	(2)	79	576	2.0	61	0.57	8.7	1.6	3	0	3	-	BC
Cornfetti	(4)	80	883	3.7	48	0.69	8.2	1.6	8	-	16	-	BC
Miracle	(7)	80	307	1.1	26	0.54	8.1	1.6	-	-	-	-	Y
Sweet Sal	(5)	83	1690	5.0	73	0.50	8.0	1.6	7	-	1	-	BC
AVX2519	(13)	83	1651	6.1	79	0.62	7.9	1.8	5	-	4	-	Y
FMX163	(4)	83	1498	6.0	88	0.67	8.7	1.6	4	-	-	-	Y
77532WX-9320	(5)	83	1344	4.3	73	0.54	7.7	1.7	4	2	17	-	Y
Silver Chief	(3)	83	1305	5.9	76	0.75	9.4	1.7	4	2	4	-	W



Table 3. Non-Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars - Columbus - 1984.

Variety & Source	( )*	Days to first harvest	Marketable Yield/A**			Avg.Wt. mkt.ears unhusked (lbs.)	Avg. lgth.ears husked (in.)	Avg. dia.ears husked (in.)	Ear worms %	Smut %	Bird damage %	Raccoon damage %	Kernel Color
			dozen of ears	wt. (tons)	per- cent								
MTD 4813	(12)	83	1305	5.3	75	0.68	8.4	1.4	3	-	-	-	Y
MTD 4814	(12)	83	1843	5.7	74	0.52	7.8	1.6	2	-	2	-	Y
XPH 2567	(3)	83	1305	4.0	69	0.51	8.0	1.6	7	4	7	-	Y
Sugar Loaf	(13)	83	1229	3.6	65	0.48	7.3	1.6	2	-	3	-	Y
77512-1820	(5)	83	1037.1	3.3	45	0.53	7.5	1.6	15	-	9	-	W
AVX 5133	(13)	83	1037	4.8	71	0.77	7.8	1.8	6	-	4	-	Y
Honeymoon	(7)	83	998	3.2	56	0.54	7.7	1.6	6	-	3	-	BC
AVX 5651	(13)	83	883	3.4	73	0.64	7.8	1.7	16	2	2	-	Y
Summer Sweet 7200	(1)	83	806	3.3	67	0.69	8.9	1.9	7	-	4	-	Y
Sugar Dots	(4)	83	729	2.2	46	0.51	7.6	1.6	-	4	31	-	BC
Seneca Sentry	(7)	83	614	2.1	48	0.58	7.7	1.7	8	-	-	17	Y
XPH 2541BC	(3)	83	537	2.3	42	0.71	9.3	1.5	-	-	2	-	BC
XPH 2553	(3)	83	422	1.7	30	0.68	7.3	1.6	11	-	38	-	Y
Calypso	(9)	84	1113	3.6	64	0.53	7.9	1.7	2	-	-	-	BC
FMX23	(4)	84	998	4.1	66	0.68	8.0	1.8	-	-	-	-	Y
Recovery	(4)	84	845	3.5	38	0.69	8.6	1.8	3	-	26	-	Y
Summer Sweet 7800	(1)	85	1152	4.7	65	0.68	7.6	1.6	3	-	-	-	Y
Summer Sweet 7600	(1)	85	960	4.0	64	0.70	8.0	1.7	11	-	-	-	Y
Burgundy Delight	(11)	85	-	-	-	-	7.8	1.8	4	-	74	-	BC
RXP 417	(8)	86	1920	6.8	81	0.59	6.1	1.6	3	-	1	-	Y
Dandy	(3)	86	1843	5.7	74	0.52	8.1	1.6	1	-	-	-	BC
XPH 2543	(3)	86	1229	4.8	76	0.66	8.1	1.8	6	-	6	-	Y
XPH 2566	(3)	86	1152	4.5	78	0.65	8.0	1.7	4	-	2	-	Y
XPH 2568	(3)	86	1152	4.4	69	0.64	7.8	1.8	2	-	-	-	Y
XPH 2581W	(3)	86	1152	4.2	79	0.61	9.0	1.6	-	-	7	0	W
AVS 5651	(13)	86	1075	4.2	82	0.64	7.8	1.6	7	-	-	-	Y
GH 2327	(9)	86	998	3.2	58	0.54	8.4	1.6	3	2	3	4	Y
XPH 2582	(3)	86	806	2.5	83	0.51	7.2	1.5	-	-	-	-	Y
NCX 2029	(5)	86	691	2.9	62	0.69	7.7	2.0	3	-	3	-	Y
XPH 2554W	(3)	86	576	2.4	45	0.70	9.1	1.9	4	-	20	-	W
Seneca Raider	(7)	86	499	1.4	49	0.46	7.2	1.6	-	-	-	-	W
RXW 8501	(8)	86	422	1.4	46	0.55	7.8	1.6	6	-	15	8	W
FMX 85	(4)	86	307	1.7	45	0.94	8.6	1.8	3	-	20	-	Y
Pennfresh	(2)	86	76	0.2	7	0.45	7.0	1.5	-	-	2	-	Y
Calico King	(3)	90	614	3.7	54	1.01	8.3	2.1	10	-	-	-	BC
Summer Delicious	(7)	91	1190	6.0	70	0.84	9.4	1.8	10	-	-	4	Y
White Lightning	(3)	91	998	3.5	67	0.58	7.4	1.7	10	3	5	-	W

Table 3. Non-Replicated Trial: Yield and Other Characteristics of Sweet Corn Cultivars - Columbus - 1984.

Variety & Source	( )*	Days to first harvest	Marketable Yield/A**			Avg.Wt.	Avg.	Avg.	Ear worms %	Smut %	Bird damage %	Raccoon damage %	Kernel Color
			dozen of ears	wt. (tons)	per- cent	mkt.ears unhusked (lbs.)	lgth.ears husked (in.)	dia.ears husked (in.)					
XPH 2571	(3)	92	768	2.7	78	0.58	7.3	1.8	3	-	-	3	Y

\*Cultivars ranked according to days to first harvest (lowest first) and dozens of marketable ears per acre (highest yield) based on ears listed first within maturity. ( ) Number within bracket refers to seed company supplying seed.

\*\*Marketable yield reduced by racoon damage.